



# Modern Coach Factory Raebareli

## आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

REV NO: 01

DATE: 17.04.2018

**ROLLING STOCK CERTIFICATE**

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2019-20/471

RLY	E	C	R	-	Coach No.	1	9	5	8	5	1	/	C	DATE OF DISPATCH	1	9	-	0	7	-	1	9
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DISPATCH TO	Sr.DME/C&W/DNR	Type	L	W	S	C	N	1	Shell No.	9	7	2	3	1	FUR.NO.	LSCN-1103
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1. **Railway Board's Order No.** : 2019/M(C)/142/2, Dated: 03-06-2019
2. **Tare Weight of Coach** : 41.24 Tones
3. **Carrying Capacity** : (a) Seating: 80 (b) Sleeping: 80 (c) Luggage: NIL

4. **Special feature:** - Choke of 5/6 mm in DV side replace with 9 mm in both type (KBI & Faiveley) letter no. MC/LHB/Brake, Dated 27.09.2018

**5. SHELL LEADING DIMENSIONS :**

S NO	DESCRIPTION	DIMENSION (MM)
1.	Maximum length over body	23700
2.	Maximum width over body	3240
3.	Maximum height from Rail Level	4039
4.	CBC height/Buffer height from Rail level 1105 +0/-10	1) 1095 (NPPE) 2) 1098 (PPE)

**6. TRACEABILITY OF SHELL ITEMS:**

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Under frame	PP END M/s-SFPL	5/19
	Complete	NPP END M/s-SFPL	5/19
		MCF/RBL	97231
2.	Lav. side wall	M/S- MIDAS GUJRAT	LAV.1
		M/S- MIDAS GUJRAT	LAV.2
3.	Side wall	MCF/RBL(CONTRACTOR V4U)	LAV.3
	LH SIDE	MCF/RBL(CONTRACTOR V4U)	LAV.4
	RH SIDE	MCF/RBL(CONTRACTOR V4U)	
4.	End wall	PP END M/S- RAIL TECH KXH	39/01
		NPP END M/S- RAIL TECH KXH	39/02
5.	Roof	M/s-ECBT	---
			221
6.	Centre Buffer Coupler	M/s- FRONTIER LTD.	PP END 01P2 NPP END 14P1

**7. AIRBRAKE TEST REPORT:**

S NO	ITEM	DESCRIPTION	SPEC. VALUE	OBSERVED
1.	Full brake application	➤ Reduce pressure of BP from 5.0 to 3.4 kg/cm <sup>2</sup> . ➤ Max. pressure in BC ➤ All Brake are applied	6 – 10 sec. 3.0 ±0.15 kg/cm <sup>2</sup> . OK	07 Sec. 3.0 kg/cm <sup>2</sup> OK
2.	Insensitivity	➤ Exhaust BP @ 0.3 kg/cm <sup>2</sup> /min.	No brake application	OK
3.	Sensitivity	➤ Exhaust BP @ 0.1 kg/cm <sup>2</sup> /Sec, after 06 Sec.	Brake must apply	OK

**8. PAINTING DETAILS:**

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	APPLICATION BY MCF/ CONTRACTOR(SUPPLY & APPLY)	AVERAGE GLOSS VALUE	DATE OF COMPLETION
1.	Paint	P.U	M/s – NEROLAC	M/S-KANSAI NEROLAC	90/89	02.07.19
2.	Insulation			Satisfactory		

*[Signature]*  
SSE/QC/MCF/RBL

मुख्य निदेशक  
रेल डिब्बा कारखाना, रायबरेली (लाहौर)







MODERN COACH FACTORY, RAEBARELI

आधुनिक रेल डिब्बा कारखाना, रायबरेली

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**9. DETAIL OF BOGIES:**

ITEMS	NPP Side				PP Side			
Bogie No	191006				191005			
Bogie Type	FIAT				FIAT			
Frame no.	ECBT-1536				ECBT-1525			
Bolster no.	APEX-224				APEX-223			
Axle No	19 P - 1806 RWF		19 P - 1941 RWF		19 P - 2694 RWF		19 P - 2771 RWF	
Wheel Dia	917.665	917.643	917.693	917.69	917.702	917.671	917.656	917.738
Wheel Disc No	TZ 12-18 13240-8WM1	TZ 02-19 25474-9ML7	TZ 12-18 13241-8WS6	TZ 02-19 26627-9MJ2	TZ 02-19 25377-9MH5	TZ 12-18 13243-8WS6	TZ 01-19 22269-8XIO	TZ 04-19 39748-9OJ3
R.B. Nos.	02-19 03061	02-19 01601	02-19 04726	02-19 01300	02-19 04327	03-19 36478	02-19 03243	
CT R B Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	

**10. SECONDARY SUSPENSION LOAD DEFLECTION VALUES :-**

DESCRIPTION	Bogie NPP side				Bogie PP side			
	Secondary 1		Secondary 2		Secondary 1		Secondary 2	
	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner
Make & Nos.	CMAFJ05-19 5101-49	CMFSK09-15-F08 R58-08Y-1174	CMAFJ05-19- 5101-50	CMFSK09-15-R58- 08Y-373	CMAFJ03-19- 5101-78	CMFSK12-18- F08-N13-08Y-084	CMAFJ03-19-5101- 61	CMFSK12-18-F08- N13-08Y-1217
Compressed Ht. at Tested Load	516	470	516	471	514	467	516	470
Alignment deviation (mm)	20	11	20	6	15	5	15	5

**11. TRACEABILITY OF BOGIE ITEMS :-**

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	12953,15896	18329,15878
2.	Primary outer Spring	CMFSK	05-19 1035-559(571,544,753,661)	05-19 1036-565(595,612,725,582)
3.	Primary Inner Spring	CMFSK	05-19 1021-945(34,24,29,28)	06-19 1037-042(09,38,85,94)
4.	Primary Damper	KONI	03-19 (04385,04188,04419,03008)	03-19 (04170,03075,04351,03056)
5.	Secondary Damper	IAI	06-19 (256880,257042)	06-19 (257186,256863)
6.	Lateral Damper	IAI	02-19 241961	05-19 251218
7.	Brake Cylinder	KBI	B(3875,3179,3193,3865)K-29	B(1450,3529,3537,4169)K-29
8.	Brake Caliper	KBI	B(1501,1663,1662,1500) -29	B(1771,1929,1930,1769)-29
9.	Brake Disc	FAV	09-18(621,620,1049)06-19(5481)133561-300-1	10-18(151)09-18(1210,1144)06-19(5481)133561-300-1
10.	Ball Joint Control Arm	AR		
11.	Lateral Bump Stop	AR/GMT		
12.	Traction Centre make	SARITA		
13.	Traction lever make	JI		
14.	Ball joint traction lever	AR		
15.	Ball joint traction centre	GMT		
16.	Secondary Rubber Pad	PRAG		
17.	Rubber Spring	BASANT/GMT		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/GMT, SARITA/AR		
20.	Fork make	EMSON		
21.	Control Arm Upper	RVE	150219-2,150219-1,150219-2,190219-2	010119-3,010119-2,010119-1,010119-2
22.	Control Arm Lower	RVE	250219-1,250219-1,250219-1,160219-3	311218-3,010119-2,010119-2,010119-2
23.	Phonic Wheel	KNORR	K-03-19	K-04-19 640209

Signature of SSE/Bogie/QC





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12. TRACEABILITY OF FURNISHING ITEMS:

**12. TRACEABILITY OF FURNISHING ITEMS:**

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- KBI, FARIDABAD	3065 25/29
2.	Pull box	M/S- KBI, FARIDABAD	
3.	Distribution valve	M/S- KBI, FARIDABAD	
4.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	2019 F 8051
5.	Decoupling arrangement	M/S-ELASTOMER INDS, MUMBAI	
6.	Floor board	M/S-SHREE RAM PNL GOVINDGARH	
7.	PVC	M/S-RESPONSIVE INDS DELHI	
8.	Lavatory Inlay	M/s- SEEMA INDS. BHOPAL	
9.	UIC Vestibule (PPE)	M/S-KIRAN RUBBER PRODUCT, PUNE	
10.	UIC Vestibule (NPPE)	M/S-KIRAN RUBBER PRODUCT, PUNE	
11.	Gangway bridge mounting (PPE)	M/S- MAHAVEER MATEL WORKS, KAPURTHALA	
12.	Gangway bridge mounting (NPPE)	M/S- MAHAVEER MATEL WORKS, KAPURTHALA	
13.	Body Side Window	M/S-EXCEL IR KOLKATA	
14.	Emergency Window	M/S-AGF INDS KOLKATA	
15.	Hopper Window	M/S- SHATABDHI SAFETY GLASS, VADODARA	
16.	Side panel	M/S-ACME INDS DELHI	
17.	Roof ceiling	M/S-EXCEL IR KOLKATA	
18.	Door way ceiling	M/S-RAJA INDS KHANNA	
19.	Body Side Doors	M/S- JBM INDUSTRIES, FARIDABAD	
20.	Vestibule Door(PPE)	M/S- JBM INDUSTRIES, FARIDABAD	
21.	Vestibule Door(NPPE)	M/S- JBM INDUSTRIES, FARIDABAD	
22.	Bio Tank	M/s- FLASH FORGE (P)LTD. VIZAG, + RAIL FAB KXH	
23.	Auxiliary Water Tank	M/S- AMIT ENG. MOHALI	
24.	Under Slung Water Tank( 2X685L)	M/S- RAIL FAB KXH	
25.	Under Slung Water Tank (1X685L)	M/S- AMIT ENG. MOHALI	
26.	Controlled Discharge Tap	M/s- HINDWARE HSIL PVT. LTD. GURUGRAM	
27.	Flexible Faucet	M/S-ACME INDS DELHI	
28.	Lotah Filler Tap	M/S-ACME INDS DELHI	
29.	Lavatory Doors	M/S-ACME INDS DELHI	
30.	Seat & Berth	M/S - OVPL (SILICON FOAM) MUMBAI	
31.	Snack Table	N/A	

*Deema*  
SSE/QC/MCF/RBL  
गुणवत्ता विभाग  
रेडिंक ०, रायबरेली (लाजगंज)







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13. MODIFICATION (IF ANY) : NIL

14. DEVIATION (IF ANY) : NIL

15. ITEM FITTED ON THE COACH ON TRIAL: NIL

S NO	ITEM PARTICULARS	PURPOSE	REPORT Frequency	REFERENCE & PERIOD OF TRIAL

**16. WARRANTY:**

S NO	COMPONENTS	WARRANTY
1	Brake Pad, wheels, flushing valves, push gravity cocks, moldings, window glasses, mirrors, clutch wire etc. ( items which are consumable in nature)	NIL
2	Other coach furnishing sub assemblies(bought out items)	24 months from the date of dispatch of coach OR 30 months from the date of supply of material whichever is earlier.

**NOTE:**

- This warranty covers free supply of parts which wear out and fails within warranty period of normal service.
- This doesn't covers faults arising out of accident, non standard maintenance practices, abnormal use or mishandling, vandal activity, arson & deficient/pilferage etc.
- This doesn't cover any consequential liabilities or damages/loss incurred by anybody; furthermore, it shall in no case extend to repayment, return of the coach or replacement of complete coach.
- Whether a defective part is to be replaced or repaired shall be at the discretion of MCF/RBL.
- For any complain/ suggestion please Mail at qualityrcfrbl@gmail.com
- Painting on supply & apply contract :- supply of material and application shall be warranted for a period of three years from date of Application for any manufacturing /Application as per clause -4,para- V of RDSO specification no .M&C/PCN/100/2013-Given below

S.No	Time period	Gloss Retention (initial gloss >85 unit at 60°)	Colour Retention rating on 0-10 scale (initial rating of painted panels/coach or ISC/RAL shade card shall be taken as 10)	Adherence of paints (with each other and with substrate )Cross-cut tape adhesion test as per ASTM D:3359/97(or latest)
1	After 1 year	80% of initial gloss	7	5B
2	After 2 year	70% of initial gloss	6	5B
3	After 3 year	60% of initial gloss	5	4B

If any imperfection is noticed or any defect arises during the warranty -period due to improper material used or due to bad workmanship, the contractor shall be bounded to set right the defect/ imperfection on free of cost basis at the base depot of the coach.

SSE/QC/MCF/RBL वरिष्ठ सहायक, गुणवत्ता विभाग आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory Raebareli	SME/QC/MCF/RBL वरिष्ठ सहायक, गुणवत्ता विभाग आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory Raebareli	Dy. QM/MCF/RBL उप मुख्य गुणवत्ता प्रबंधक आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli



MCF/RBL





Modern Coach Factory Raebareli  
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**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG NON AC COACHES

TYPE COACH	LWSCN	SHELL/COACH NO	195851/C
RAILWAY	ECR	DATE OF DESPATCH	
Sr no	Description of test	Remarks	
1.	PUMP EQUIPMENTS	OK	
2.	LIGHTS, NL,LAP CHARGING SOCKETS	OK	
3.	RAILWAY CARRIAGE FAN	OK	
4.	WHEEL SLIDE PROTECTION SYSTEM ( WSP )	OK	
5.	WORKING OF 9 KVA TRANSFORMER	OK	
6.	WORKING OF REGULATED BATTERY CHARGER	OK	
7.	SAFETIES :		
7.1.	FUSES AND THEIR RATING	OK	
7.2.	CONTROL CIRCUIT	OK	
7.3.	POWER CIRCUIT	OK	

**Senior Section Engineer**  
**Quality control / Electrical**  
**Modern Coach Factory Raebareli**







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## FOR ELECTRICAL ITEMS

## ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

01.	Switch board cabinet Make : <b>TRINITRON</b> On Board Sr no : <b>19/06/TCS/MCF/3436/355/0040</b> HT Panel Sr no : <b>19/06/TCS/MCF/3436/355/0040</b>	EDTS 333, Rev`01'Am-1	<b>01</b>
02.	Pump equipment with PLC controller & pump box Make : <b>DR AUTO</b> Sr no PA: <b>2019/06/037</b> Sr no.1 : <b>19060524</b> Sr no.2 : <b>19060512</b> Srno.CPA: <b>NIL-DR AUTO</b>	As per spec EDTS 186,Rev-a, Am- 2	<b>01</b>
03.	Emergency light system for EOG type coaches (AEL), Make : <b>VGS</b>	EDTS 151,Rev -c Am-1 & 2	<b>04</b>
04.	Passenger Alarm Cum Indication Light (PACIL) Make: <b>DR AUTO</b>	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-I	<b>02</b>
05.	Fitment of Switch Plate Assly(Cabin Side) Make : <b>RECORD/SALZER</b>	EDML 086,Rev-03, ITEM-01	<b>20</b>
06.	Fitment of Switch Plate Assly Corridor Side),Make : <b>SSK/SALZER</b>	EDML 086, Rev 03, ITEM-02	<b>20</b>
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make: <b>IMT CABLES</b>	IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I.	<b>30</b>
08.	Cabin,Corridor,doorway and Gangway Lights. Make: <b>RT VISION</b>	As per RDSO/PE/SPEC/TL-0091(REV-1) TYPE B-1	<b>26</b>
09.	Lavatory Light Make: <b>DR AUTO</b>	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-D &	<b>04</b>
10.	Night Light Fitting (LED BASED) Sticker For Berth Number On Night light Fitting For LHBSCN(80-BERTHER)Coaches Make : <b>DR AUTO</b>	CC76289 & CC76443	<b>09</b>

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**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES**

11.	Battery fuse box +ve Make : <b>INDORAIL</b>	LW 71001,Alt-F	<b>01</b>
12.	Battery fuse box -ve Make : <b>ISGPL</b>	LW 71002,Alt-F	<b>01</b>
13.	Regulated battery charger Make : <b>PI ENGG.</b> Sr no : <b>PI/19060037</b>	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	<b>01</b>
14.	9KVA transformer Make : <b>VIMAL</b> Sr no : <b>VTC 3089 LHB-1957</b>	As per RDSO/PE/SPEC/TL 0158, 2010, Rev`0',Ty I.	<b>01</b>
15.	ZS coupling 400A/750V/03Ph/50hz. Make : <b>MAA LAXMI INDUSTRIES</b>	As per spec No EDTS 105,Rev`e' Am-3, TYPE-2	<b>01 set</b>
16.	Feeder junction boxes. Make : <b>AECO</b>	EDTS-328 REV-C	<b>01 set</b>
17.	Wheel set earthling equipment. Make : <b>CHANDA &amp; CHANDA</b>	EDTS101,REV-C,AM-1	<b>02 sets</b>
18.	Wheel Slide Protection System (WSP) Make : <b>KNORR</b> Sr no : <b>0119040907</b>	M/s : <b>KNORR</b>	<b>01 set</b>
19.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make : <b>AMARA RAJA</b> Lug date : <b>06/19</b>	RDSO/pe/spec/ac-0009 rev-1- 2008 amdt-1	<b>01 set</b>
20.	Battery box for LHB coaches. Make : <b>HITECH</b>	CC 91205	<b>01</b>

<b>SSE/EL/QC</b>	<b>AWM(ELECT.)/MCF/RBL</b>
<b>वरिष्ठ अनुभाग अभियन्ता</b>	<b>SEE(P)/MCF/RBL</b>

गुणवत्ता नियंत्रण  
आ०रे०डि०का० / लालगंज / रायबरेली  
S.S.E./Elect-QC/M.C.F./LLJ/RBL

स० कार्य प्रबन्धक / विद्युत  
आ०रे०डि०का० / रायबरेली  
A.W.M./Electrical/MCF/RBL

